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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,665	09/15/2000	Gregory L. Slaughter	5181-47300	2188
58467	7590	12/28/2007	EXAMINER	
MHKKG/SUN			ZHEN, LI B	
P.O. BOX 398				
AUSTIN, TX 78767			ART UNIT	PAPER NUMBER
			2194	
			MAIL DATE	DELIVERY MODE
			12/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/663,665	SLAUGHTER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Li B. Zhen	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 October 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3-22,24-43 and 45-53 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3-22,24-43 and 45-53 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

1. Claims 1, 3-22, 24-43 and 45-53 are pending in the application.

## CLAIM INTERPRETATION

2. The broadest reasonable interpretations of the claims have been afforded that instant application. The following are interpretations of the claimed invention.
3. The phrase “data representation language representation of the object” is not explicitly defined in the specification and the phrase is not a known term in the art. The specification only provides examples of data representation language. For example, applicant discloses throughout the specification that the data representation language may be XML (p. 13, lines 5 – 8; p. 24, line 25; p. 55, lines 29 – 30; p. 97, lines 28 – 29; p. 122, lines 27 – 29; p. 128, lines 28 – 30; p. 149, lines 5 – 6; p. 149, line 13; p. 167, lines 22 – 23, emphasis added). Although, dependent claims 8, 20, 30, 41, 46 and 53 recite that the data representation language is XML, the independent claims only recite data representation language. Therefore, it appears that applicants want the phrase “data representation language” to be defined as something broader than XML in the independent claims. Absent an explicit definition for “data representation language” in the specification, the phrase will be afforded its broadest reasonable interpretation. A language in the computer arts is defined as a system of symbols and rules used for communication with or between computers. Thus, a data representation language of an object is interpreted as a system of symbols and rules for representing the object.

***Response to Arguments***

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 1, 6, 7, 9, 22, 26 – 29, 31, 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,553,428 to Ruehle et al. [hereinafter Ruehle] in view of U.S. Patent No. 6,782,425 to Germscheid et al. [hereinafter Germscheid, previously cited].**

8. As to claim 1, Ruehle teaches the invention substantially as claim including a method for the exchange of objects in a distributed computing environment [client/server network; col. 2, line 47 – col. 3, line 6], comprising:

user accessing a client device [user at the client system can input data; col. 3, lines 36 – 52]; and

generating a computer programming language object from a data representation language representation of the object [When data is received, the class name is read from the socket at step 32 and an instance of the class is created at step 33. The receive method is exercised at step 34 so that all of the instance variables are read into the class; col. 6, lines 43 – 56], wherein the object is an instance of a class in the computer programming language [utilize JAVA at the client; col. 2, line 47 – col. 3, line 6], and wherein the object is accessible for use during the accessing the client device [execute method is exercised in order to perform the desired function; col. 6, lines 43 – 56], and the client device receiving a message [receive method receives and unpackages the data; col. 4, lines 12 – 33] in the data representation language [data is serialized and sent back across the wire to the client; col. 2, line 47 – col. 3, line 6], wherein the message includes the data representation language representation of the object [data is received by the client, it is deserialized; col. 2, line 47 – col. 3, line 6 and col. 1, lines 49 – 65] from a service device [a server system 11; col. 5, lines 45 – 57]. Although Ruehle teaches initializing session between the client and server [col. 4, lines

63 – 67], Ruehle does not specifically teach deleting the computer programming language object in response to the terminating access.

However, Germscheid teaches secure access to sensitive data [col. 4, lines 42 – 53] and deleting a computer programming language object in response to the terminating access [termination of session; col. 16, lines 1 – 6] so that the deleted object is not accessible by subsequent users of the client device [deletes the CCISession object which provides the secure access; col. 16, lines 1 – 6].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ruehle to include the features of Germscheid because this would prevent unauthorized access to the object [col. 16, lines 4 – 5 of Germscheid] and deallocates the storage for the object after the user has finished accessing the object.

9. As to claim 22, this is an apparatus claim that corresponds to method claim 1; note the rejection to claim 1 above, which also meet this apparatus claim.

10. As to claim 43, this is a product claim that corresponds to method claim 1; note the rejection to claim 1 above, which also meet this product claim.

11. As to claim 6, Ruehle teaches generating a computer programming language object from a data representation language representation of the object is performed by a virtual machine executing within the client device [utilize JAVA at the client, col. 2, line

47 – col. 3, line 6; examiner notes that a virtual machine is inherent to the Java environment].

12. As to claim 7, Ruehle as modified teaches generating a plurality of computer programming language objects from data representation language representations of the objects [col. 6, lines 43 – 56 of Ruehle], and deleting the plurality of computer programming language objects in response to the terminating access [col. 16, lines 1 – 6 of Germscheid].

13. As to claim 9, Ruehle teaches the computer programming language is the Java programming language [col. 2, line 47 – col. 3, line 6].

14. As to claim 26, Ruehle as modified teaches the device is further configured to accept user input to initiate the terminating the user access [col. 16, lines 1 – 6 of Germscheid].

15. As to claim 27, this is rejected for the same reason as claim 7 above.

16. As to claim 28, Ruehle teaches a processor, a memory [col. 2, line 47 – col. 3, line 6], and a virtual machine executed by the processor from the memory, wherein the generating is performed by the virtual machine [col. 2, line 47 – col. 3, line 6; examiner notes that a virtual machine is inherent to the Java environment].

17. As to claim 29, Ruehle as modified teaches the accepting, the terminating, and the deleting are performed by the virtual machine [col. 2, line 47 – col. 3, line 6 of

Ruehle], wherein the object is stored in the memory subsequent to the generating, and wherein, in the deleting, the object is deleted from the memory [col. 16, lines 1 – 6 of Germscheid].

18. As to claim 31, this is rejected for the same reasons as claim 9 above.
19. As to claim 45, this is rejected for the same reason as claim 7 above.
20. **Claims 10, 11, 16 – 19, 21, 32, 33, 37 – 40, 42, 47, 48, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruehle in view U.S. Patent No. 6,505,300 to Chan et al. [hereinafter Chan].**
21. As to claim 10, Ruehle teaches a method for the secure exchange of objects in a distributed computing environment [client/server network; col. 2, line 47 – col. 3, line 6], comprising:
  - a user accessing a client device [user at the client system can input data; col. 3, lines 36 – 52];
  - the client device receiving a message [receive method receives and unpackages the data; col. 4, lines 12 – 33] in a data representation language [data is serialized and sent back across the wire to the client; col. 2, line 47 – col. 3, line 6] from a service device in the distributed computing environment [a server system 11; col. 5, lines 45 – 57], wherein the message includes a data representation language representation of an object [When data is received, the class name is read from the socket at step 32 and an

instance of the class is created at step 33. The receive method is exercised at step 34 so that all of the instance variables are read into the class; col. 6, lines 43 – 56];

generating the object from the data representation language representation of the object [When data is received, the class name is read from the socket at step 32 and an instance of the class is created at step 33. The receive method is exercised at step 34 so that all of the instance variables are read into the class; col. 6, lines 43 – 56], wherein the object is an instance of a class in the computer programming language [utilize JAVA at the client; col. 2, line 47 – col. 3, line 6], and wherein the object is accessible for use during the accessing the client device [execute method is exercised in order to perform the desired function; col. 6, lines 43 – 56]. Although Ruehle teaches the invention substantially, Ruehle does not teach determining that the user has access rights to the computer programming language object, generating the object from the data representation language representation of the object and if the determining determines the user does not have access rights to the computer programming language object, not generating the object.

However, Chan teaches determining that the user has access rights to the computer programming language object [security check is performed only when the process 70 first attempts to access the object 72 (create or open); col. 5, lines 55 – 67], generating the object [allow members of "Group.sub.3 " access to the object 72; col. 6, lines 16 – 33] and if the determining determines the user does not have access rights to the computer programming language object, not generating the object [an ACL that has

a "DENY" entry for that security ID will still cause access to be denied; col. 7, lines 21 – 38].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ruehle to incorporate the features of Chan because this associates a trust level with users and restricts execution contexts for untrusted content that restricts the resources that the content may access [col. 1, line 58 – col. 2, line 5 of Chan].

22. As to claim 32, this is a system claim that corresponds to method claim 10; note the rejection to claim 10 above, which also meet this system claim.

23. As to claim 47, this is a product claim that corresponds to method claim 10; note the rejection to claim 10 above, which also meets this product claim.

24. As to claim 11, Ruehle as modified teaches the message further includes access information for the computer programming language object, wherein the determining if the user has access rights to the computer programming language object uses the access information [col. 5, lines 31 – 55 of Chan].

25. As to claim 16, Ruehle as modified teaches the user terminating the accessing the client device and storing the computer programming language object in response to the terminating access [col. 4, lines 15 – 33 of Chan].

26. As to claim 17, Ruehle as modified teaches the user accessing the client device subsequent to the storing the object and accessing the stored object during the accessing the client device [col. 4, lines 15 – 33 of Chan].
27. As to claim 18, Ruehle as modified teaches storing access rights information of the user with the object, wherein the accessing the stored object comprises verifying the access rights of the user with the stored access rights information [col. 5, lines 31 – 55 of Chan].
28. As to claim 19, Ruehle teaches generating a computer programming language object from a data representation language representation of the object is performed by a virtual machine executing within the client device [utilize JAVA at the client, col. 2, line 47 – col. 3, line 6; examiner notes that a virtual machine is inherent to the Java environment].
29. As to claim 21, Ruehle teaches the computer programming language is the Java programming language [col. 2, line 47 – col. 3, line 6].
30. As to claim 33, this is a system claim that corresponds to method claim 11; note the rejection to claim 11 above, which also meet this system claim.
31. As to claim 37, Ruehle as modified teaches a memory, accept user input to terminate the access of the client device, and store the computer programming

language object to the memory in response to the terminating access [col. 4, lines 15 – 33 of Chan].

32. As to claims 38 and 39, they are rejected for the same reasons as claims 17 and 18 above.

33. As to claim 40, Ruehle teaches a processor, a memory [col. 2, line 47 – col. 3, line 6], and a virtual machine executed by the processor from the memory, wherein the generating is performed by the virtual machine [col. 2, line 47 – col. 3, line 6; examiner notes that a virtual machine is inherent to the Java environment].

34. As to claim 42, Ruehle teaches the computer programming language is the Java programming language [col. 2, line 47 – col. 3, line 6].

35. As to claim 48, this is a product claim that corresponds to method claim 11; note the rejection to claim 11 above, which also meets this product claim.

36. As to claims 51 and 52, these are rejected for the same reasons as claims 16 – 18 above.

37. **Claims 8, 30 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruehle and Germscheid further in view U.S. Patent No. 7,120,863 to Wang.**

38. As to claim 8, Ruehle as modified does not teach the data representation language is extensible Markup Language (XML).

However, Wang teaches the data representation language is extensible Markup Language (XML) [if the behavior of an element class is extended with a user defined class, the preferred embodiments serialize those new states and interfaces added to the XML file; col. 6, lines 18 – 60] and generating an object from XML [recursively generate classes for further subelements within the XML document 4; col. 7, lines 11 – 43].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the invention of Ruehle and Germscheid to incorporate the features of Wang because allows the user to enter customized behaviors using a graphical user interface which would then be serialized in a file that may be used when later instantiating the class to provide the user defined settings [col. 6, lines 18 – 60 of Wang].

39. As to claim 30, this is rejected for the same reasons as claim 8 above.

40. As to claims 46, Ruehle as modified teaches the data representation language is eXtensible Markup Language (XML) [col. 6, lines 18 – 60 of Wang] and the computer programming language is the Java programming language [col. 2, line 47 – col. 3, line 6 of Ruehle].

41. **Claims 20, 41 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruehle and Chan further in view of in view U.S. Patent No. 7,120,863 to Wang.**

42. As to claim 20, Ruehle as modified does not teach the data representation language is extensible Markup Language (XML).

However, Wang teaches the data representation language is extensible Markup Language (XML) [if the behavior of an element class is extended with a user defined class, the preferred embodiments serialize those new states and interfaces added to the XML file; col. 6, lines 18 – 60] and generating an object from XML [recursively generate classes for further subelements within the XML document 4; col. 7, lines 11 – 43].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the invention of Ruehle and Chan to incorporate the features of Wang because allows the user to enter customized behaviors using a graphical user interface which would then be serialized in a file that may be used when later instantiating the class to provide the user defined settings [col. 6, lines 18 – 60 of Wang].

43. As to claim 41, this is rejected for the same reasons as claim 20 above.

44. As to claim 53, Ruehle as modified teaches the data representation language is eXtensible Markup Language (XML) [col. 6, lines 18 – 60 of Wang] and the computer

programming language is the Java programming language [col. 2, line 47 – col. 3, line 6 of Ruehle].

**45. Claims 3 – 5, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruehle and Germscheid further in view of U.S. Patent No. 6,505,300 to Chan et al. [hereinafter Chan].**

**46.** As to claim 3, Ruehle as modified does not teachs accessing a client device comprises the user coupling an identification device to the client device, wherein the identification device provides identification information of the user to the client device, and wherein the termination the accessing comprises decoupling the identification device from the client device.

However, Chan teaches accessing a client device comprises the user coupling an identification device to the client device [authentication used by the client (e.g., by presenting a password, a certificate, using a smartcard, or even a thumbprint/retina scan); col. 18, line 58 – col. 19, line 12], wherein the identification device provides identification information of the user to the client device [a trust level of the user; col. 16, line 55 – col. 17, line 3], and wherein the termination the accessing comprises decoupling the identification device from the client device [col. 18, line 58 – col. 19, line 12].

It would have been obvious to a person of ordinary skill in the art at time the invention was made to further modify the combination of Ruehle and Germscheid to include the features of Chan because this associates a trust level with users and

restricts execution contexts for untrusted content that restricts the resources that the content may access [col. 1, line 58 – col. 2, line 5 of Chan].

47. As to claim 4, Ruehle as modified teaches the identification device is a smart card [col. 18, line 58 – col. 19, line 12 of Chan].

48. As to claim 5, Ruehle as modified teaches the accessing a client device comprises the user logging on to the client device by providing user identification to the client device [col. 9, line 32 – col. 10, line 11 of Chan], and wherein the terminating the accessing comprises the user logging off the client device [col. 18, line 58 – col. 19, line 12 of Chan].

49. As to claims 24 and 25, these are apparatus claims that correspond to method claims 3 and 4; note the rejections to claims 3 and 4 above, which also meet these apparatus claims.

50. **Claims 12 – 15, 34 – 36, 49 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruehle and Chan further in view of Germscheid.**

51. As to claim 12, Ruehle as modified does not teach deleting the computer programming language object in response to the user terminating access to the client device, wherein the deleted object is not accessible for use by subsequent users of the client device.

However, Germscheid teaches secure access to sensitive data [col. 4, lines 42 – 53] and deleting a computer programming language object in response to the terminating access [termination of session; col. 16, lines 1 – 6] so that the deleted object is not accessible by subsequent users of the client device [deletes the CCISession object which provides the secure access; col. 16, lines 1 – 6].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the invention of Ruehle and Chan to include the features of Germscheid because this would prevent unauthorized access to the object [col. 16, lines 4 – 5 of Germscheid] and deallocates the storage for the object after the user has finished accessing the object.

52. As to claim 13, Ruehle as modified teaches accessing a client device comprises the user coupling an identification device to the client device [authentication used by the client (e.g., by presenting a password, a certificate, using a smartcard, or even a thumbprint/retina scan); col. 18, line 58 – col. 19, line 12 of Chan], wherein the identification device provides identification information of the user to the client device [a trust level of the user; col. 16, line 55 – col. 17, line 3 of Chan], and wherein the termination the accessing comprises decoupling the identification device from the client device [col. 18, line 58 – col. 19, line 12 of Chan].

53. As to claim 14, Ruehle as modified teaches the identification device is a smart card [col. 18, line 58 – col. 19, line 12 of Chan].

54. As to claim 15, Ruehle as modified teaches the accessing a client device comprises the user logging on to the client device by providing user identification to the client device [col. 9, line 32 – col. 10, line 11 of Chan], and wherein the terminating the accessing comprises the user logging off the client device [col. 18, line 58 – col. 19, line 12 of Chan].

55. As to claims 34 – 36, these are system claims that correspond to method claims 12 – 14; note the rejections to claims 12 – 14 above, which also meet these system claims.

56. As to claims 49 and 50, these are product claims that correspond to method claims 12 and 13; note the rejections to claims 12 and 13 above, which also meet these product claims.

#### **CONTACT INFORMATION**

57. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Li B. Zhen  
Primary Examiner  
Art Unit 2194

Ibz

A handwritten signature in black ink, appearing to read "Li B. Zhen".